



# RADAR / LIDAR EQUIPMENT USE

**FC No.: 1010**

**Date: 08-10-18**

If a provision of a regulation, departmental directive, or rule conflicts with a provision of the contract, the contract prevails except where the contract provision conflicts with State law or the Police Collective Bargaining Law. (FOP Contract, Article 61)

## Contents:

- I. Policy
- II. Definitions**
- III. Training and Certification
- IV. Equipment Record Keeping
- V. **Traffic Lidar & Training Coordinator** Responsibilities
- VI. Patrol Supervisor's Responsibilities
- VII. Operator Procedures and Responsibilities
- VIII. Safety/Health Precautions
- IX. CALEA Standards**
- X. Proponent Unit**
- XI. Cancellation**

## I. Policy

The use of radar and lidar units by certified officers is encouraged to assist the department in meeting the goals described in FC 1000, "Traffic Management System." All officers and supervisors involved in the use and care of the radar/**lidar** units will follow the procedures in this directive and the Radar/**Lidar** Operator Training Manual to ensure the safety of employees, the public, and the equipment.

## II. Definitions

- A. **LIDAR (Light Detection and Ranging):** *a device used to measure the speed of a moving vehicle by transmitting a beam of infrared light at an object and calculating the amount of time it takes the reflected light to return to the unit.*
- B. **RADAR (Radio Detection and Ranging):** *a device used to measure the speed of a moving object by detecting a change in radio frequencies caused by the Doppler effect, whereby the frequency of the returned radio signal is increased in proportion to the object's speed of approach if the object is approaching, and decreased if the object is receding.*

## III. Training and Certification

- A. Only officers certified by a certified instructor may operate radar/**lidar** ~~laser~~ equipment. Operators will only utilize equipment on which they have received training and certification.
- B. The radar/**lidar** operator certification course shall consist of classroom instruction and practical field application.
- C. Officers who have received radar/**lidar** training outside the department and would like authorization to operate the particular equipment for which they have been trained, must submit a memorandum to the Director, Training and Education Division. The memorandum will include a course syllabus, any related

study materials, and a certificate indicating successful completion of the training. Authorization will be granted by the Director, Training and Education Division, based on an evaluation of the materials presented.

#### **IV. Equipment Record Keeping**

- A. The FCC Station License issued for the operation of radar will be maintained by the county radio shop. Upon renewal, a copy will be forwarded to the Central Supply Section.
- B. Calibration, maintenance, and repair records for all radar and lidar units will be maintained by the ***Traffic Lidar & Training Coordinator***. All radar and ***lidar*** equipment will be calibrated by an authorized testing facility designated by the department.

#### **V. Traffic Lidar & Training Coordinator Responsibilities**

- A. ***The Traffic Lidar & Training Coordinator responsibilities are:***
  - 1. ***Ensure assigned lidar equipment is calibrated every three years and repaired as needed.***
  - 2. ***Ensure assigned moving radar is calibrated every one year and repaired as needed.***
  - 3. ***Maintain the Departments lidar and moving radar inventory in an established database.***
  - 4. ***Maintain calibration files after certification or repairs are completed.***
  - 5. ***Publish current lidar and moving radar records on MCP Intranet.***
  - 6. ***Custodian of Records for Department's lidar and moving radar inventory.***
  - 7. ***Coordinate lidar/radar calibration or repair with the Central Supply Section***
    - a. ***A unit in need of calibration or repair will be delivered to the Central Supply Section***
    - b. ***Responsible for packaging and delivering the unit to the commercial carrier for shipment. Upon receipt of the calibrated or repaired unit, the Central Supply Section will notify the Traffic Lidar & Training Coordinator to arrange pick up.***
  - 8. ***Establish a course at each district station for testing and distance measuring of the lidar unit.***

#### **VI. Patrol and Traffic Squad Supervisor's Responsibilities**

- A. Patrol and Traffic Supervisors will:
  - 1. Determine radar/***lidar*** enforcement locations. Locations may also be assigned at the direction of the District commander.
  - 2. Maintain data about radar/***lidar*** activities within the district. Data collection will be mandatory and may be gathered with the MCP 1010, "Speed Enforcement Data Sheet."
  - 3. Review all MCP 1010 for each enforcement period. Completed MCP forms will be given to the district traffic supervisor.
  - 4. ***Be responsible for notifying the Traffic Laser & Training Coordinator about missing lidar units and lidar/moving radar units in need of repair.***

#### **VII. Operator Procedures and Responsibilities**

- A. Radar/***lidar*** operators will test the equipment prior, during and at the conclusion of each enforcement period, and upon changing geographic location. If the unit fails to pass the tests, it is to be immediately removed from service and the officer will ***notify their traffic/patrol supervisor***. If the malfunctioning unit is permanently assigned to a patrol shift/ traffic squad, the operator will return the unit to their supervisor.
- B. Officers acting as members of a stop team and issuing citations on foot will only be deployed during daylight hours. Operators will maintain visual and radio contact with the stop team. Police vehicles may

be utilized at any time to stop violators with safety for personnel, the public, and equipment being the primary consideration.

- C. Operators will adhere to the requirements and procedures stated in the Radar/*Lidar* Operator Training Manual.
- D. Radar/*lidar* units will be secured in such a manner to prevent damage during an abrupt movement. When a unit is not ***mounted in the vehicle or*** connected to a power source, it will be properly stored in the carrying case.
- E. When requested by the violator, operators will provide available information on the unit utilized (e.g., serial number, manufacturer, etc.). However, if this request interferes with the ongoing enforcement activity or officer/violator safety, the violator will be referred to the operator's supervisor.
- F. No more than two cruisers will be utilized with any one radar/*lidar* location unless authorized by a supervisor.
- G. Operators are to complete the MCP 1010 for each enforcement period. Completed MCP 1010 forms and related citations will be forwarded to the officer's immediate supervisor for review.
- H. Operators ***will*** not point the *lidar* at the sun or other strong light source.
- I. The operator will protect the *lidar's* optical surfaces from contacting objects.

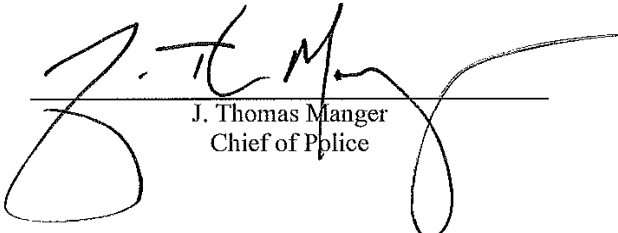
#### **VIII. Safety/Health Precautions**

- A. Risks due to exposure to microwave radiation are almost negligible. Nonetheless, there are some common-sense precautions that should be taken:
  - 1. ***Moving radar units should*** be mounted inside the patrol cars.
  - 2. Officers should not place activated radar units on their laps.
  - 3. An operator should never hold onto the antenna or hold the antenna closer than six inches from the officer's body.
- B. ***Lidar*** units are inherently eye safe. However, the following precautions should be taken:
  - 1. Avoid staring directly into the *lidar* beam for extended periods of time.
  - 2. Avoid staring into the *lidar* beam within 50 feet while using optical gain devices such as telescope or a pair of binoculars.

**IX. CALEA Standards: 61.1.1, 61.1.5, 61.1.6, 61.1.8, 61.1.9, 17.5.3, 82.3.3, 82.3.5**

**X. Proponent Unit: *Traffic Division***

**XI. Cancellation:** This directive cancels Function Code 1010, effective date of ***08-21-02***



J. Thomas Manger  
Chief of Police